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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,457	08/29/2001	Jin-Oh Kwag	6192.0218.AA	5066

7590 12/09/2004  
McGuireWoods LLP  
1750 Tysons Blvd  
Suite 1800  
McLean, VA 22102

EXAMINER

RICHARDS, N DREW

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/940,457

Applicant(s)

KWAG ET AL

Examiner

N. Drew Richards

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 6 and 8 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (U.S. Patent No. 6,469,764 B1).

Kim et al. teach a panel for a liquid crystal display in figures 2 and 3 for example. Kim et al. teach an insulating substrate 20, a first wire 21 formed on the insulating substrate 20, a second wire 22 intersecting and insulated from the first wire 21 as taught on column 6 lines 49-53, a pixel area defined by the intersecting of the first wire 21 and the second wire 22, a pixel electrode 25 provided in the pixel area, a domain-defining member provided over the insulating substrate and dividing the pixel area into a plurality of domains, and an opaque shading film 24 formed over the insulating substrate and covering a texture around the domain defining member. The domain-defining member is the projections 25b of the pixel electrode and the openings formed between projections 25b. The shading film overlaps the domain-defining member at least in part. The shading film covers a portion of the domain-defining member, since the shading film outlines and covers a portion of the domain-defining member it also covers the texture around the domain-defining member. The shading film

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24 is opaque as it is taught as being formed of Cr, Al or Mo which are opaque metals on column 9 lines 3-7.

Kim et al. do not teach the pixel electrode being transparent. However, Official Notice is taken that it is well-known and obvious to one of ordinary skill in the art at the time of the invention, to form the pixel electrode of a transparent material. The pixel electrode is commonly formed of a transparent material to allow a greater amount of light to pass through the layer to increase the brightness of the pixel and to improve an effective aperture ratio. Thus, it would have been obvious to one of ordinary skill in the art to form the pixel electrode of a transparent material.

With regard to claim 2, the domain-defining member comprises projections 25b projecting outward from pixel electrode 25.

With regard to claim 3, the pixel electrode has an opening pattern between sections 25b and the domain-defining member comprises the opening pattern.

With regard to claim 4, the domain-defining member comprises the projections and openings of the pixel electrode.

With regard to claim 7, an outline of a portion of the domain-defining member overlapping the shading film is encircled by an outline of the shading film.

***Allowable Subject Matter***

3. Claims 5, 6 and 8 are allowed.

***Response to Arguments***

4. Applicant's arguments filed 9/29/04 have been fully considered but they are not persuasive.

Applicant has argued that Kim et al. fail to disclose the counter electrode 24 (corresponding to the claimed shading film) being opaque. This is not persuasive as Kim et al. clearly teach in column 9 lines 3-7 the counter electrode 24 being formed of a metal layer, such as Cr, Al or Mo. These metals are known to be opaque. Thus, Kim et al. has taught the counter electrode 24 (shading film) being opaque.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

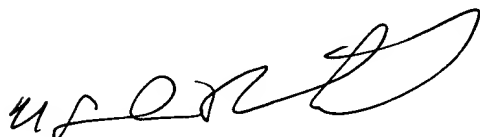
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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Drew Richards whose telephone number is (571) 272-1736. The examiner can normally be reached on Monday-Friday 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



NDR



TOM THOMAS  
SENIOR PATENT EXAMINER  
ELECTRONIC BUSINESS CENTER 2800